

**DESCRIPTION OF REVISED VERSIONS OF  
PLAINTIFFS' EXHIBITS 587-88 & 591-94**

On the first remand in this case, Plaintiffs provided to the Court and to Defendants re-sorted versions of the spreadsheets in Plaintiffs' Exhibits 587 through 594, to accompany their Proposed Findings of Fact and Conclusions of Law Following Remand. In its Revised Findings of Fact & Conclusions of Law, the Court determined that these spreadsheets "properly counted" the actionable violations for which Exxon was found liable. ECF No. 257, pp. 51, 56.

Now, Plaintiffs provide revised versions of six of those re-sorted spreadsheets, corresponding to Plaintiffs' Exhibits 587 & 588 (Count I spreadsheets of reportable and recordable emission events at the refinery) and Plaintiffs' Exhibits 591-94 (Count II spreadsheets of reportable and recordable emission events at the olefins plant and the chemical plant). Plaintiffs have filed PDF versions of these spreadsheets using the Court's ECF system, and have also provided native Microsoft Excel versions of each spreadsheet via email to the Court's case manager and to Defendants.

Plaintiffs provide these revised spreadsheets to assist the Court in identifying those violations which meet one or more of the criteria for traceability set forth by the Fifth Circuit. This is accomplished through a single change made to the prior version of the spreadsheets: Plaintiffs have

added a column to the far-right side of each spreadsheet entitled “Traceability Codes.” Any previously established actionable violation that *meets one or more* of the traceability criteria is denoted with a letter code (or codes) in the Traceability Codes column; for any previously established actionable violation that *fails to meet any* of the traceability criteria, the Traceability Column is left blank. Plaintiffs note that they have also voluntarily left the Traceability Column blank when the emission of a pollutant totaled one pound or less – even if that emission would have met one or more of the Fifth Circuit’s traceability criteria.

For each type of pollutant under Count I, and for each separate emission limit under Count II, sub-totals of days of traceable violations are provided at the bottom of each grouping (such rows are highlighted in green), right next to the sub-totals of the previously established actionable violations. Below all of the sub-totals, a grand Total of Traceable Days of Violation is provided.

#### TRACEABILITY CODES

The following letter codes, corresponding to the Appeals Court’s traceability criteria, are used in the revised spreadsheets:

F = Violation that could cause or contribute to FLARING

S = Violation that could cause or contribute to SMOKE

H = Violation that could cause or contribute to HAZE

O-NZ = Violation that could cause or contribute to chemical ODORS *and* violated a NON-ZERO emission limit

O-RQ = Violation that could cause or contribute to chemical ODORS *and* exceeded the REPORTABLE QUANTITY for that pollutant

O-M = Violation that could cause or contribute to chemical ODORS *and* was of sufficient MAGNITUDE to reach neighborhood and cause odor

R-NZ = Violation that could cause or contribute to RESPIRATORY or allergy-like symptoms *and* violated a NON-ZERO emission limit

R-RQ = Violation that could cause or contribute to RESPIRATORY or allergy-like symptoms *and* exceeded the REPORTABLE QUANTITY for that pollutant

R-M = Violation that could cause or contribute to RESPIRATORY or allergy-like symptoms *and* was of sufficient MAGNITUDE to reach neighborhood and cause symptoms

Many violations satisfy more than one of these criteria. Every applicable code has been entered in the Traceability Codes column. For example, the revised PX 587 spreadsheet (at row 99 of the Excel version) lists an emission of 7,255 lbs. of carbon monoxide from Flare 27. Because this was a flaring event, it is denoted with an “F” in the Traceability Codes column; because carbon monoxide is an ozone-forming chemical and therefore contributes to haze, there is also an “H” in the Traceability Codes column; and because the amount released exceeds the 5,000 lb. reportable

quantity threshold for carbon monoxide, which can contribute to respiratory symptoms, there is also an “R-RQ” in the Traceability Codes column.

#### COUNTING TRACEABLE DAYS OF VIOLATION

In calculating totals of traceable days of violations, Plaintiffs referred to the numbers listed in the “Number of Days of Violation” column already found by the Court. The above example involving carbon monoxide released from a flare had a duration of 28 hours, 10 minutes (expressed as “28:10”) and therefore constitutes two “days” of violations, as reflected in the “Number of Days of Violation” column on the spreadsheet. In tabulating traceable days of violation for the Limited Remand Proposed Findings, this release adds two days of violation to the total of flaring-related violations; two days of violation to the total of haze-related violations; two days of violation to the total of respiratory-related violations exceeding a reportable quantity; and two days of violation under Count I.

As was the case on the first remand, any emissions described as “already counted” in the “Number of Days of Violation” column are not included in the totals or subtotals, to avoid the double-counting of emissions from multiple sources that are subject to the same flexible permit limit.

REPORTABLE QUANTITIES

To determine whether a violation involved the release of more than a reportable quantity of a given pollutant, Plaintiffs followed 30 Tex. Admin. Code § 101.1(89), which provides that the reportable quantity is the lowest of the quantities listed in 40 C.F.R. Part 302, Table 302.4; 40 C.F.R. Part 355, App. A; or 30 Tex. Admin. Code § 101.1(89)(A)(i)(III); for any pollutant not listed, the reportable quantity is 100 pounds.

Accordingly, the following thresholds were used to determine whether the release of an odor-causing or respiratory symptom-causing pollutant exceeded a reportable quantity:

<u>Pollutant</u>	<u>Reportable Quantity (lbs.)</u>
ACETALDEHYDE	100
AMMONIA	100
BENZENE	10
1,3-BUTADIENE	10
BUTANES	5,000
BUTENES	100
CARBON DISULFIDE	100
CARBONYL SULFIDE	100
CARBON MONOXIDE	5,000
ETHYLENE	100
ETHYLBENZENE	1,000
FORMALDEHYDE	100
HYDROGEN CYANIDE	10
HYDROGEN CHLORIDE	5,000
HYDROGEN SULFIDE	100
ISOPRENE	100
NO <sub>x</sub>	200
PENTENES	100

PROPANE	5,000
PROPYLENE	100
SO2	500
TOLUENE	100
XYLENE	100